



Application No. 10/677,048

05-09-05

JFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: CHENG, KANG-CHUNG

Title: "STATE-DISPLAYING DEVICE"

Application No.: 10/677,048

Filed: 09/30/2003

Examiner: Chante Harrison

Group Art Unit: 2672

Attorney Docket No.: US920022

---

Fremont, California

May 6, 2005

COMMISSIONER FOR PATENTS

Alexandria, VA 22313-1450

RESPONSE

Sir:

In the matter of the above-entitled application and in response to the Office Action of January 18, 2005, please see the explanation for rebuttal the 35 U.S.C. 103(a) rejection and amend the claims as follows:

35 U.S.C. 103(a)

The explanation for rebutting the 35 U.S.C. 103(a) rejections is listed in the following.

First, there are significant differences between the prior art (US 5,650,800, Andrew Benson,

hereinafter, "Benson") and the current invention. Benson discloses two major components: a control panel and a remote interface module coupled to the control panel. On the contrary, our current invention describes a state-displaying device comprising three different components: a universal asynchronous receiver/transmitter, a microprocessor coupled to the receiver/transmitter, and a multi-segment display module.

Second, there are no modified or combined teachings found in Benson's disclosure. Benson failed to disclose the component of multi-segment display module as described in our current invention. In Benson, the basic component of control panel includes microprocessor and UART, however, such control panel does not teach or suggest the component of multi-segment display module. Moreover, Benson only discloses a manual code entry of touch screen for users to prepare interface module (in FIG. 6 of Benson). Benson only discloses the preferred embodiment of the manually entered code including visual or voice identification, magnetic card or physical keys or chip identification.

In comparing to Benson's disclosure, the multi-segment display module is unique in our current invention. Such multi-segment display includes at least one seven-segment display and can display a corresponding symbol according to the displaying signal DS from

the microprocessor. Each seven-segment display is composed of seven LED's arranged to form "8" and a round point at the lower right corner thereof. Moreover, such displaying signal DS can include bit selection signals and segment selection signals and can be used to designate the power on or off state of the LED's. Therefore, Benson's disclosure will not enable persons skilled in the art to incorporate a multi-segment display module.

Further, Benson failed to disclose the element and function of universal asynchronous receiver/transmitter. In Benson, the basic component of remote interface module includes a processor, an exposed visual display, an input/output means, and a memory means.

Benson's remote interface module does not teach or suggest the component of universal asynchronous receiver/transmitter. In our current invention, the function of universal asynchronous receiver/transmitter can receive the state data and then converts the data into a serial mode for outputting to be displayed on the displaying device. Therefore, Benson does not teach the element of asynchronous receiver/transmitter.

Third, the resulting combination is not the claimed invention. There is no suggestion or motivation in Benson to teach the application of state-displaying device. In our current invention, the state data can be generated by a number of executive programs and can be